

ON GEOMETRIC DISSECTIONS AND TRANSFORMATIONS.

By *Henry Perigal, F.R.A.S., &c.*

[Extracted from *The Messenger of Mathematics*, New Series, No. 19, 1872.]

“The present series of papers consist chiefly of notes and
“diagrams extracted from my note-books and sketches made
“during the last forty years. I have devoted much time and
“thought to the solution of geometric theorems and problems
“by dissections and transpositions: viz. in proving the equality
“of areas in equivalent rectangles, &c., and investigating how
“the figures could be best dissected, so that their component
“parts might be fitted together in either form; and I have
“often contemplated proving all the suitable Theorems and
“Problems in Euclid by such dissections and transpositions:
“so as to render them self-evident by ocular demonstration.
“I worked on paper ruled all over in small squares, which
“I found useful in facilitating dissections; and I have always
“had a fancy that the ancient Egyptians and early Greek
“geometers adopted some such expedient in their geometrical
“researches. So that I deem it probable that the property
“of the right-angled triangle may have been discovered by
“similar means; and the solution I hit upon forty years ago
“was perhaps the very one discovered forty centuries ago,
“and re-discovered by Pythagoras nearly twenty centuries
“afterwards; and not unlikely, as was also the case with me,
“in the endeavour to find geometrically a square demonstrably
“equal in area to a circle by dissection and transposition.”

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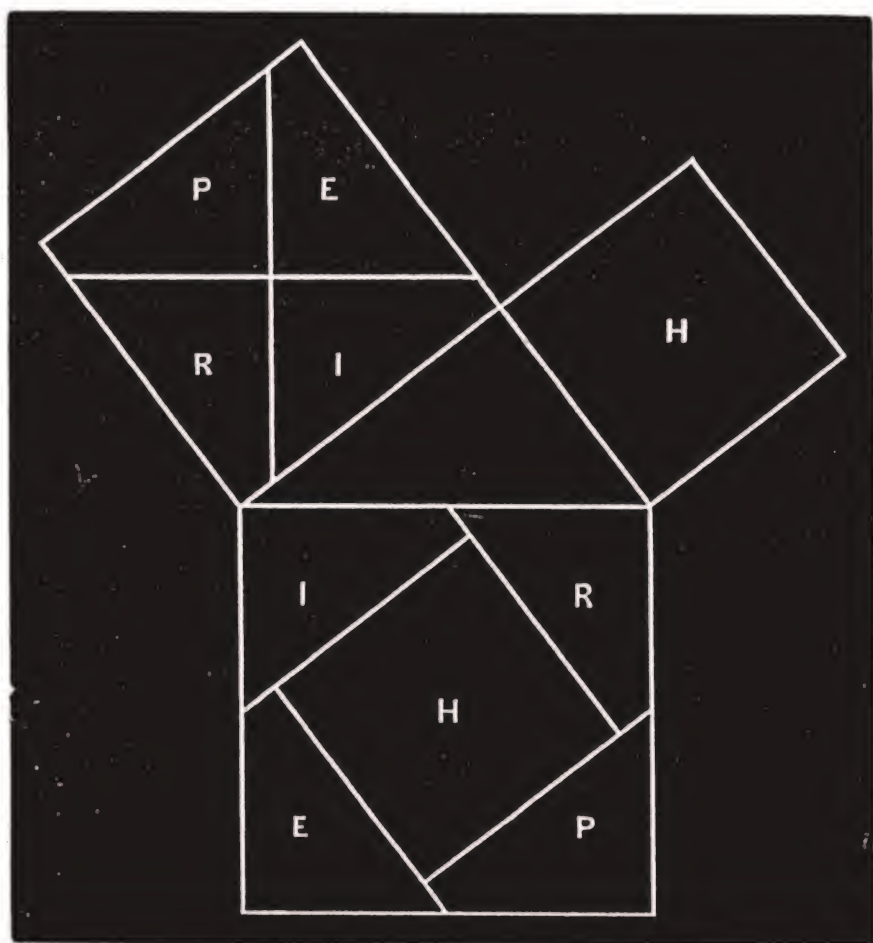
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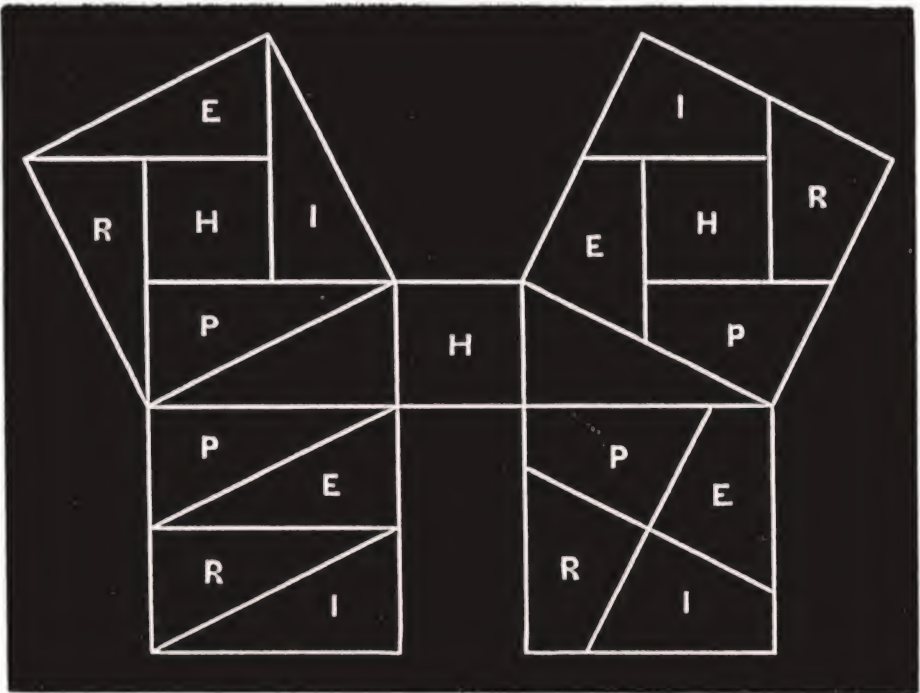
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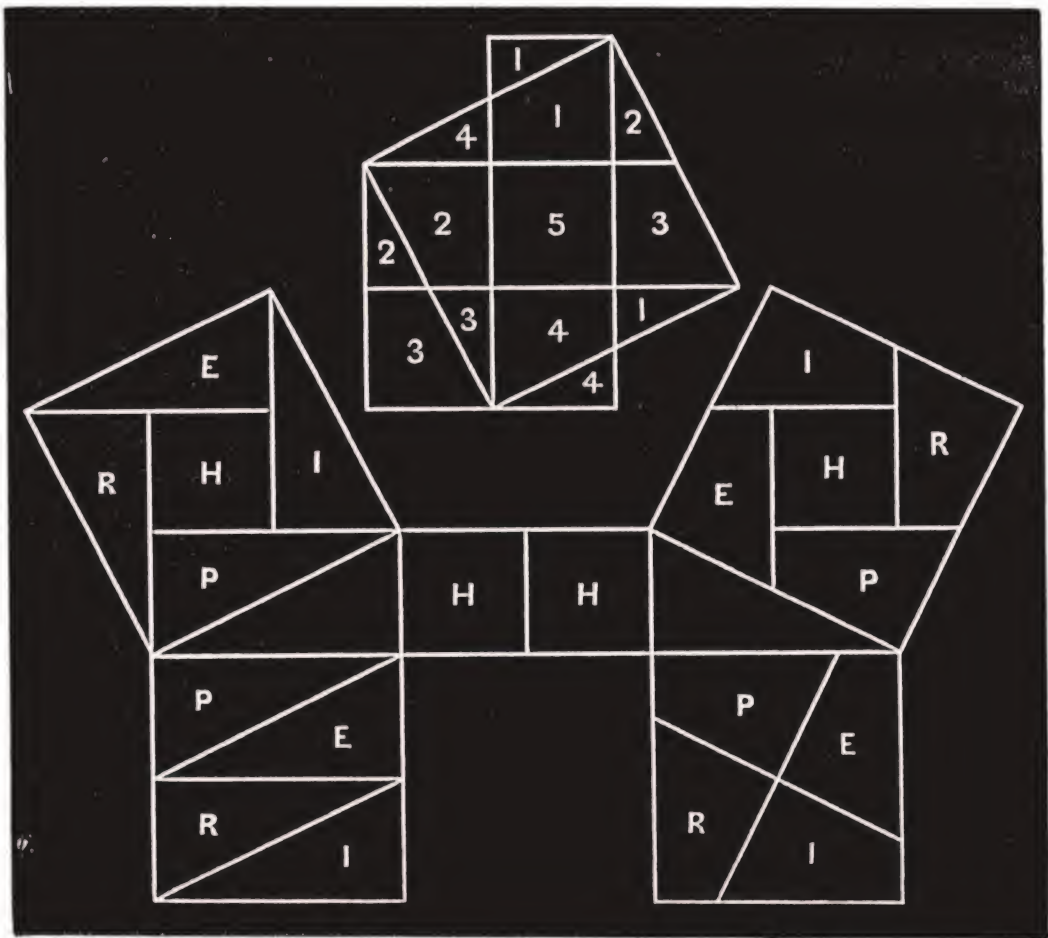
GEOMETRIC DISSECTIONS AND TRANSPOSITIONS.



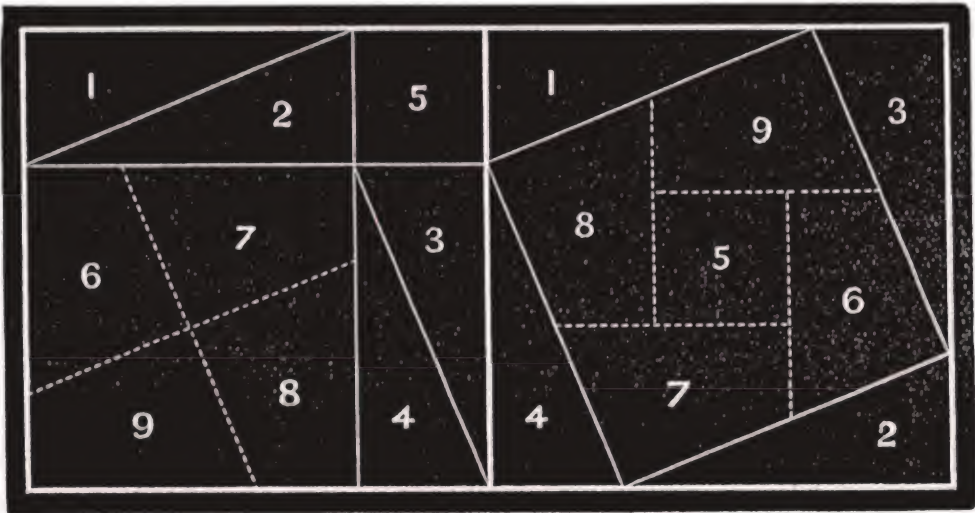
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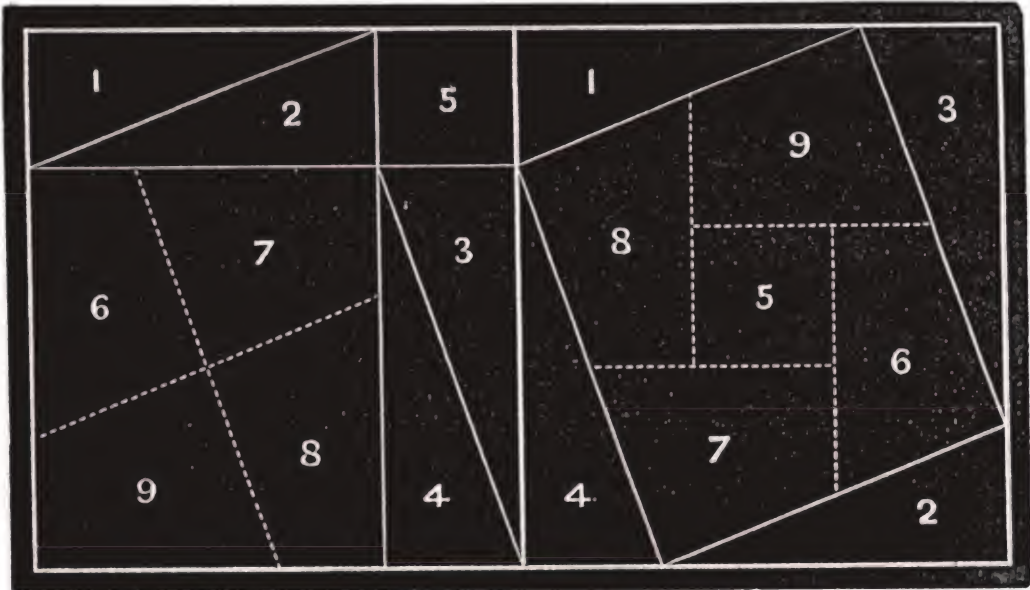
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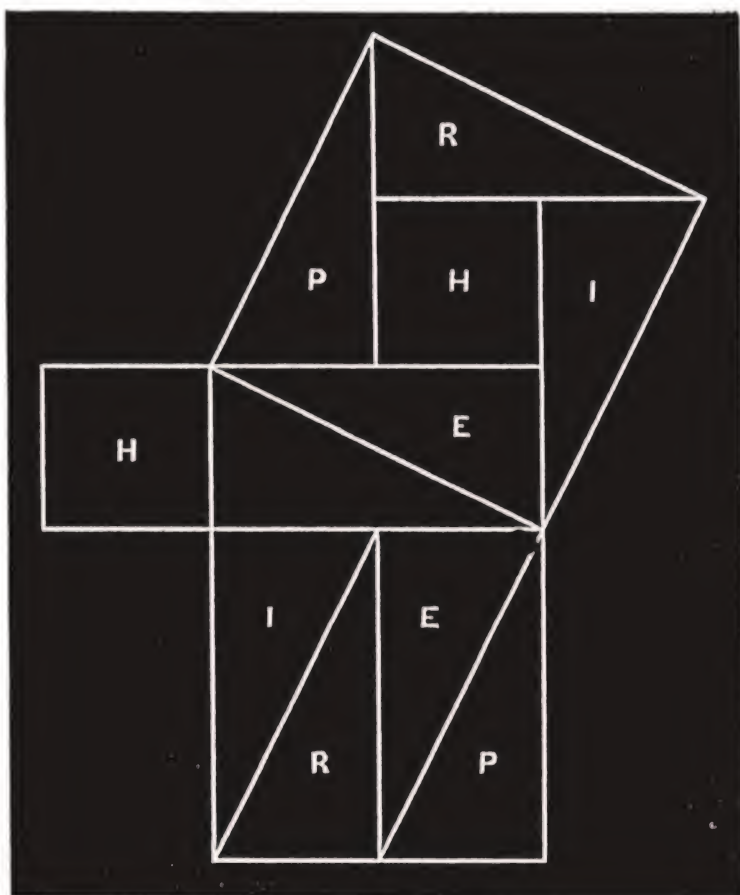
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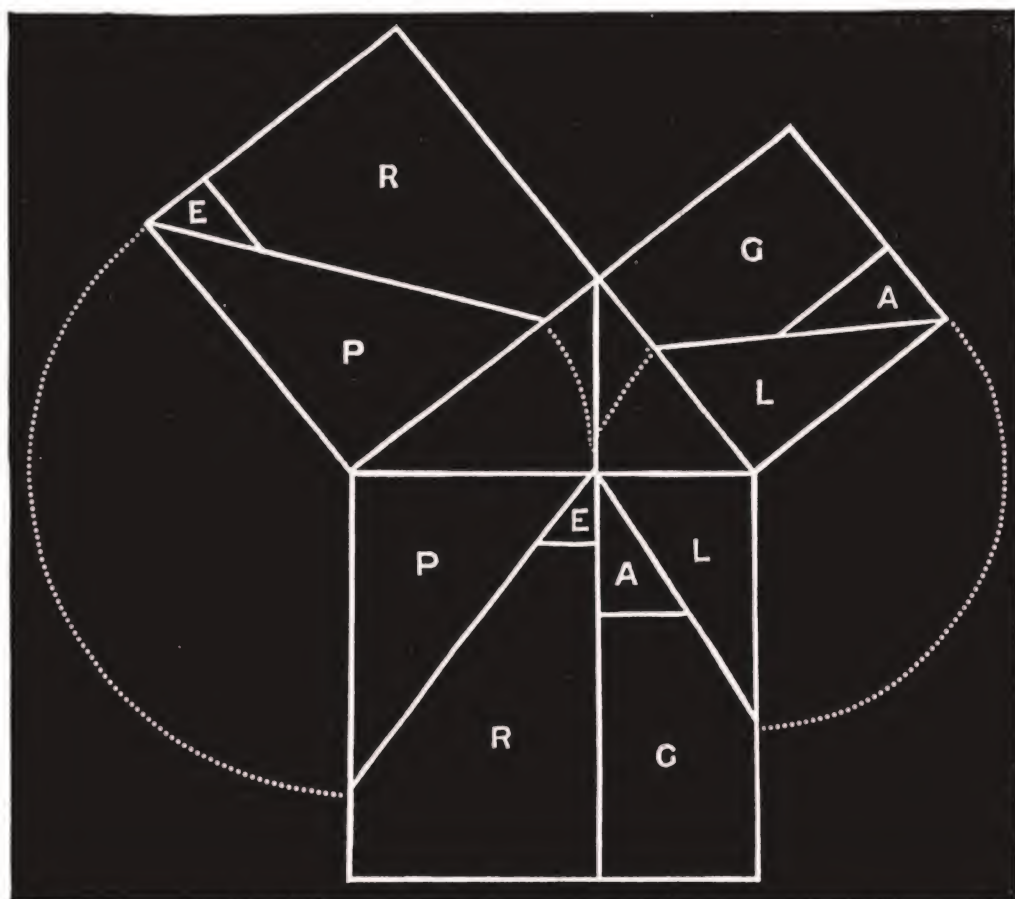
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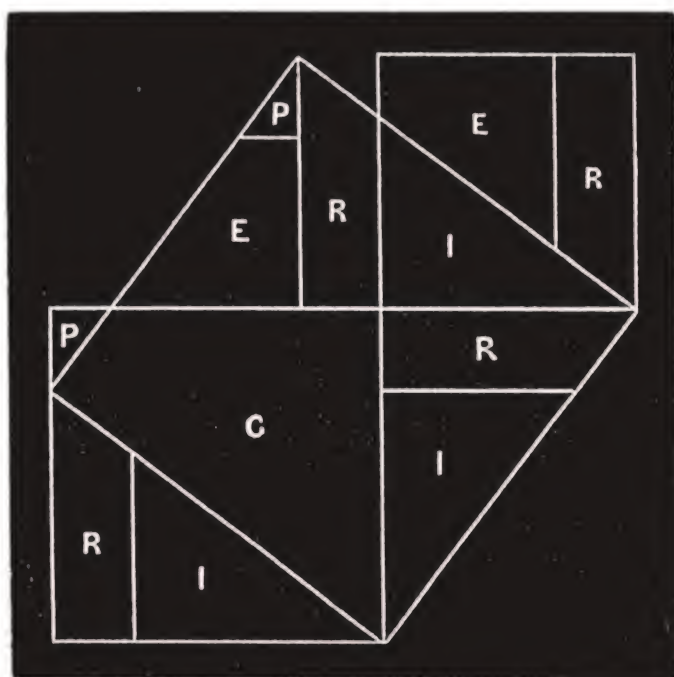
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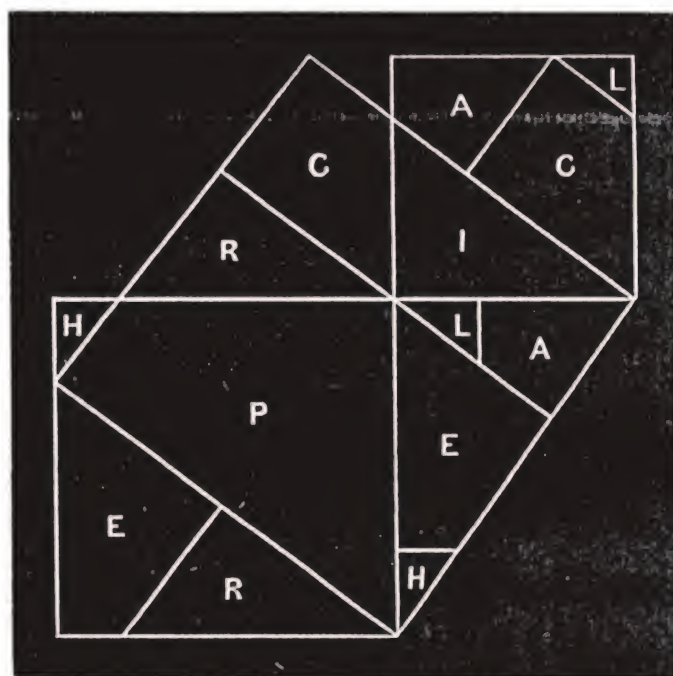
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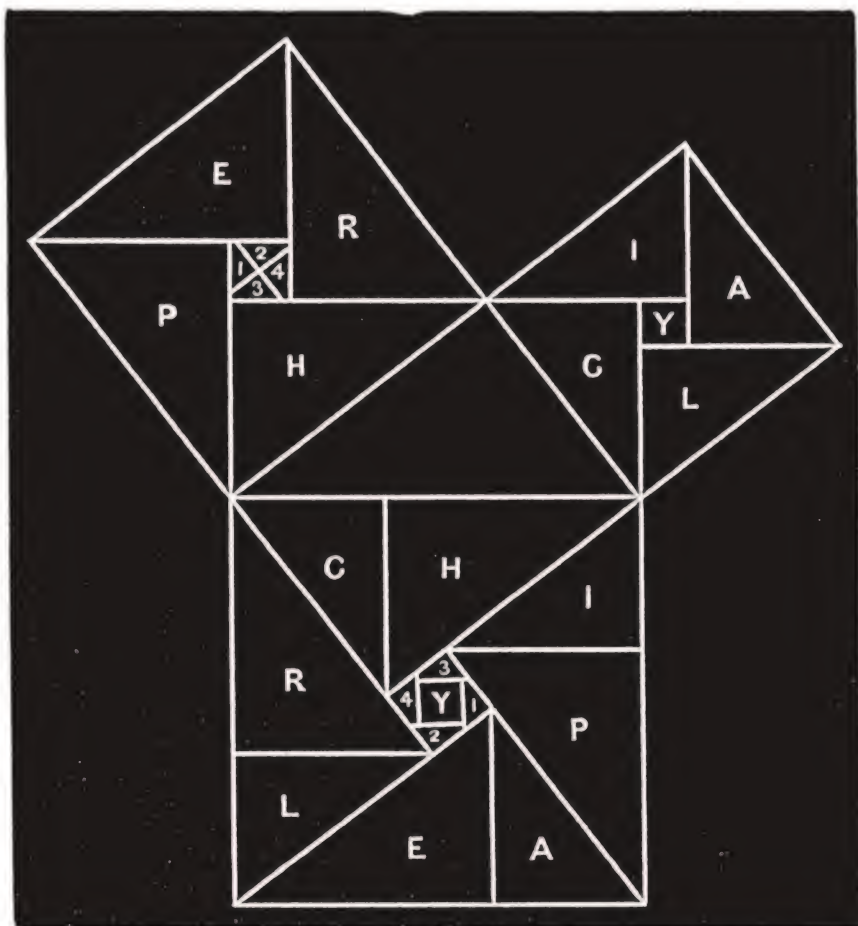
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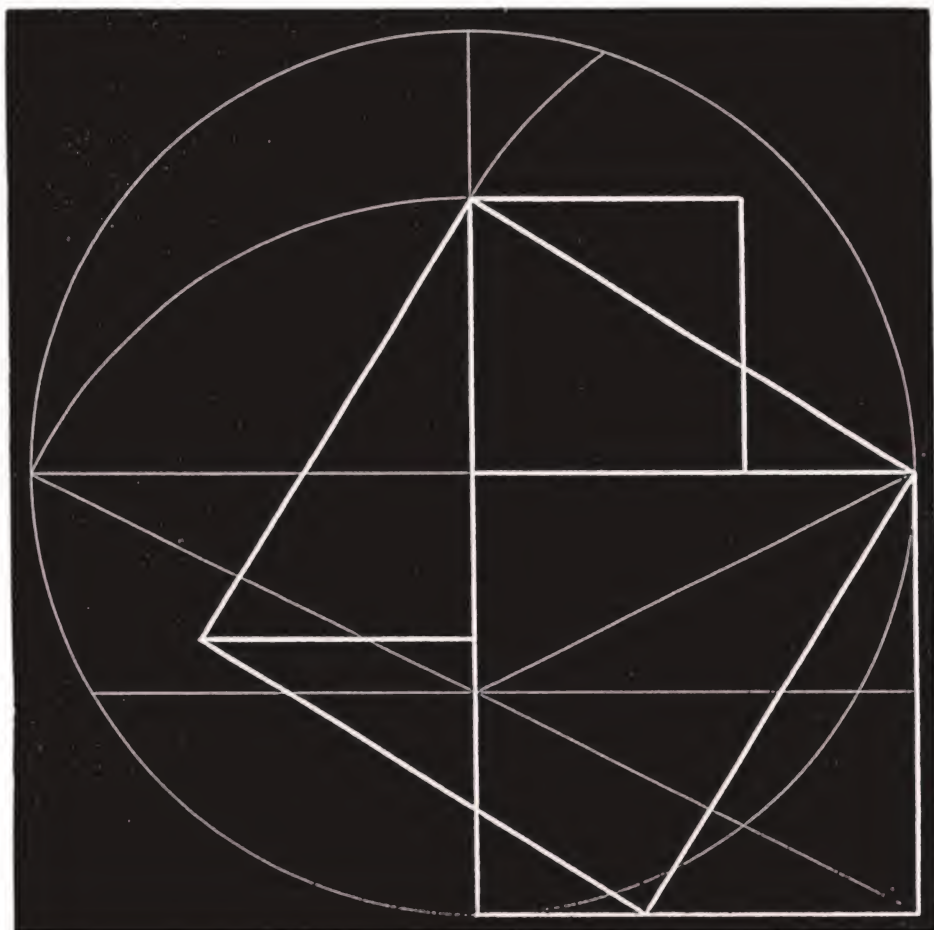
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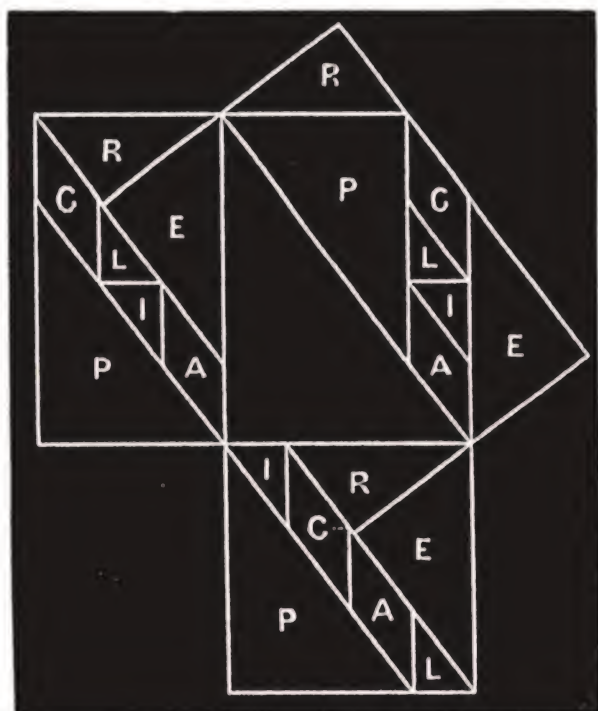
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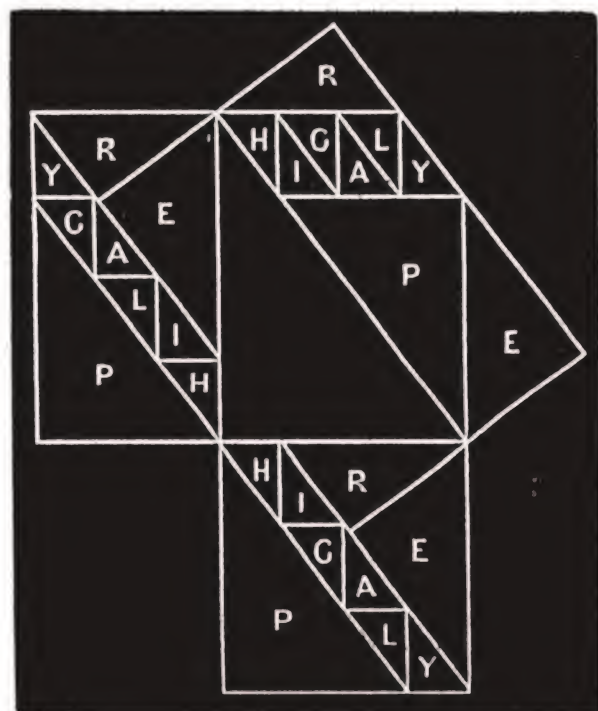
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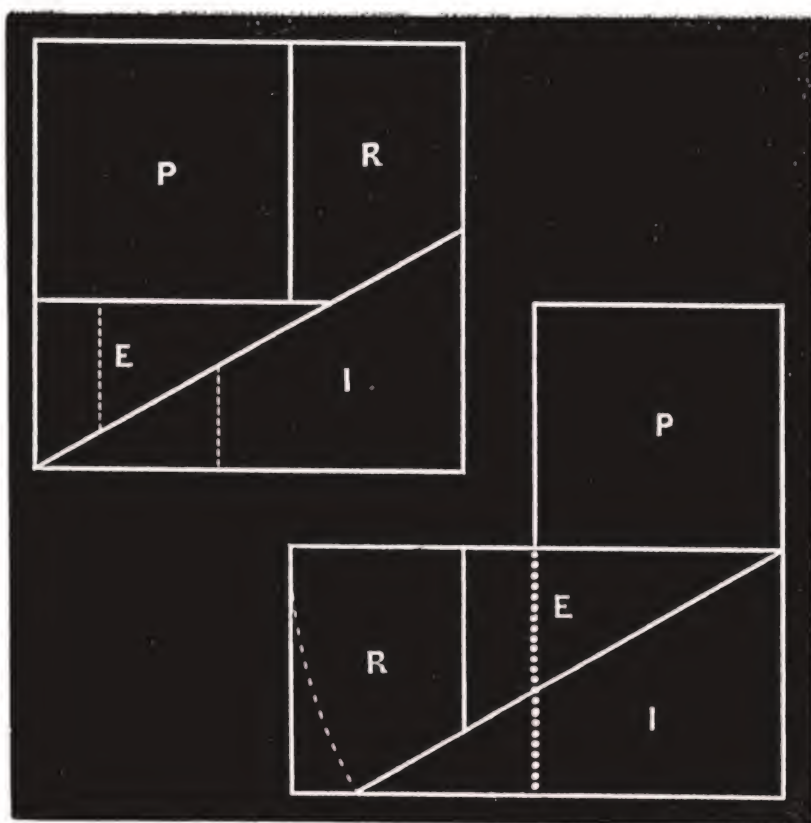
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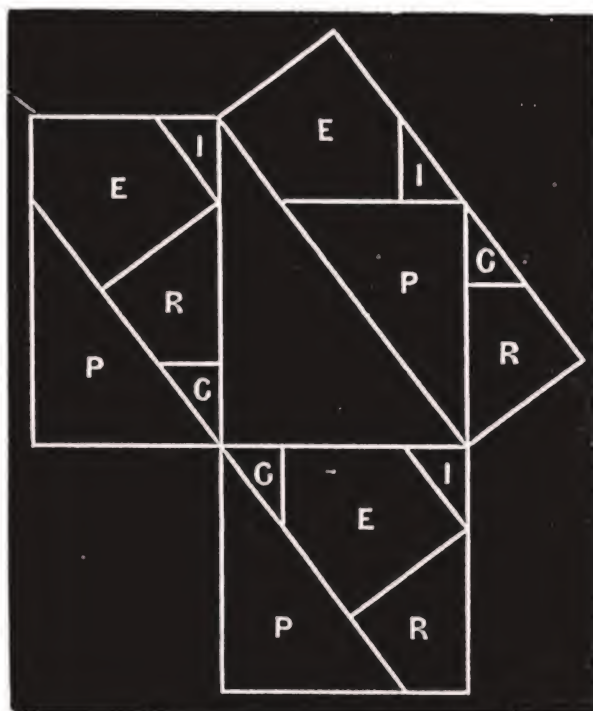
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